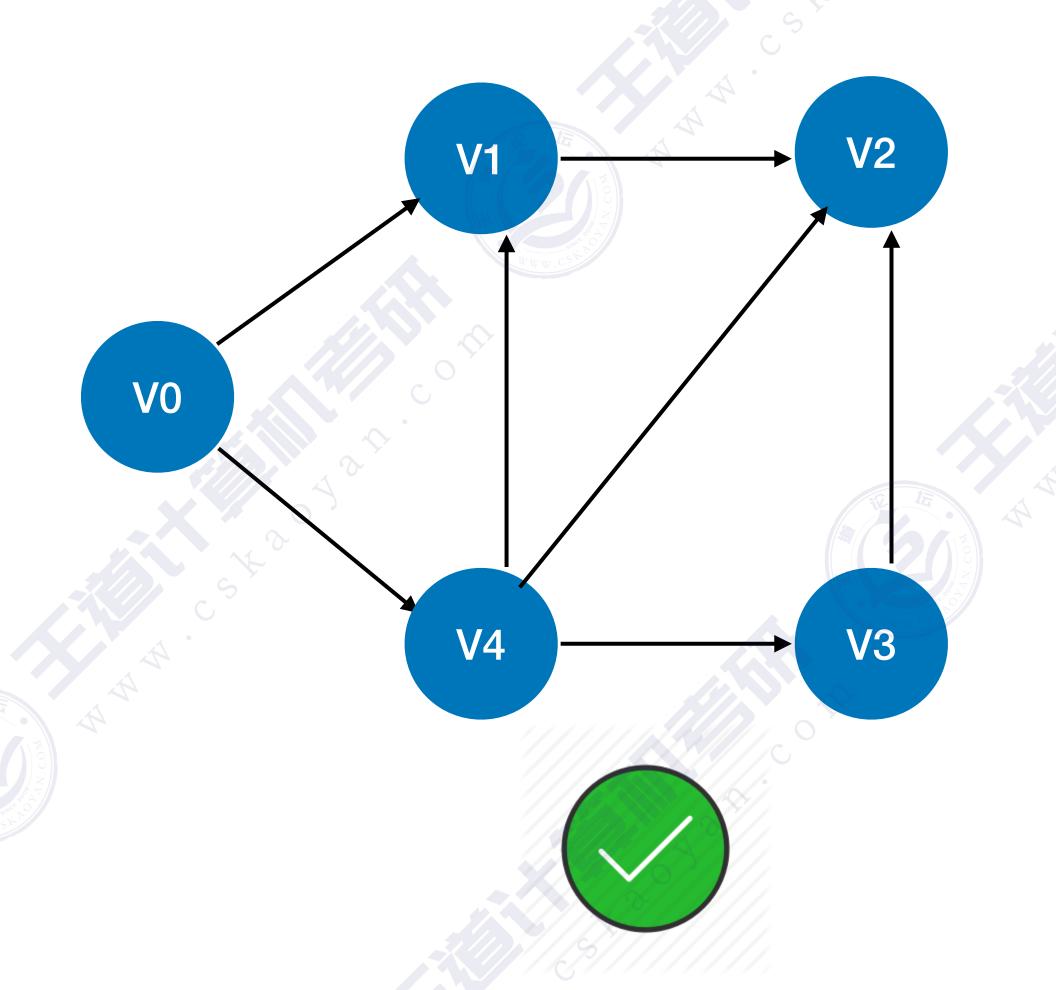
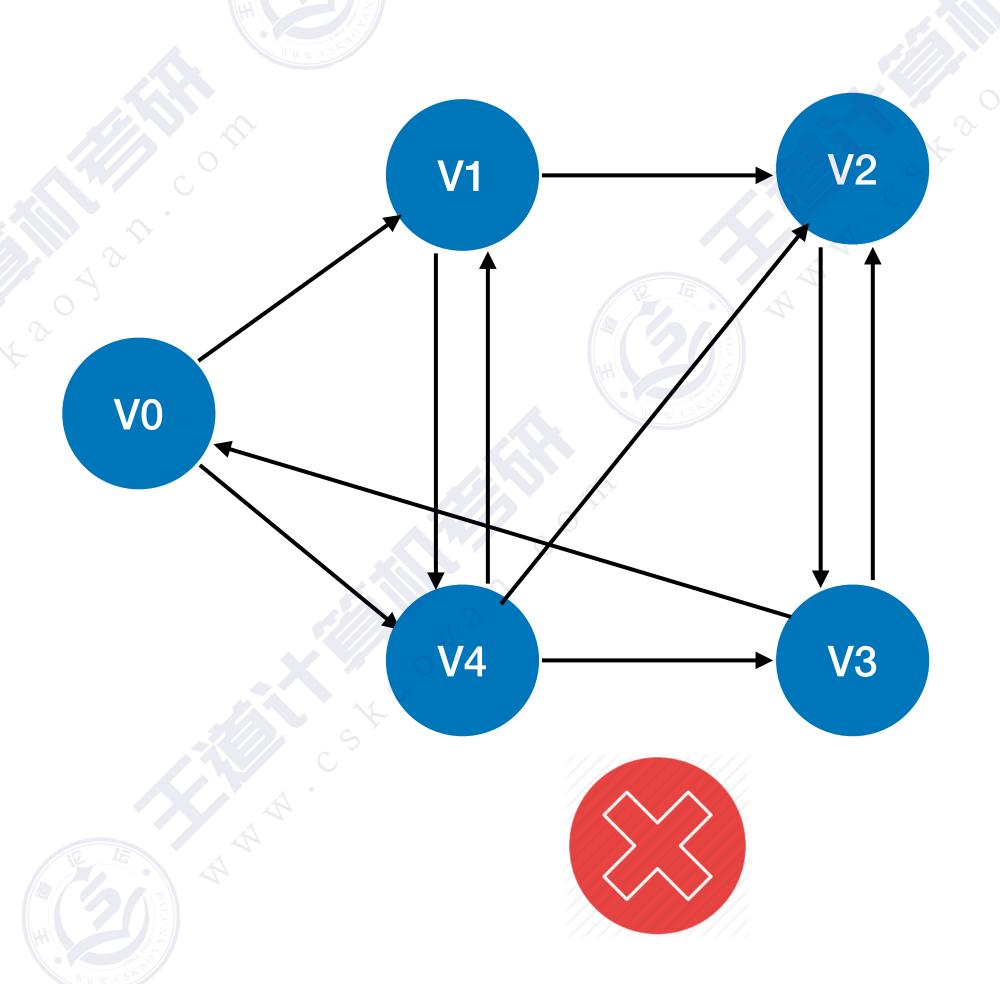


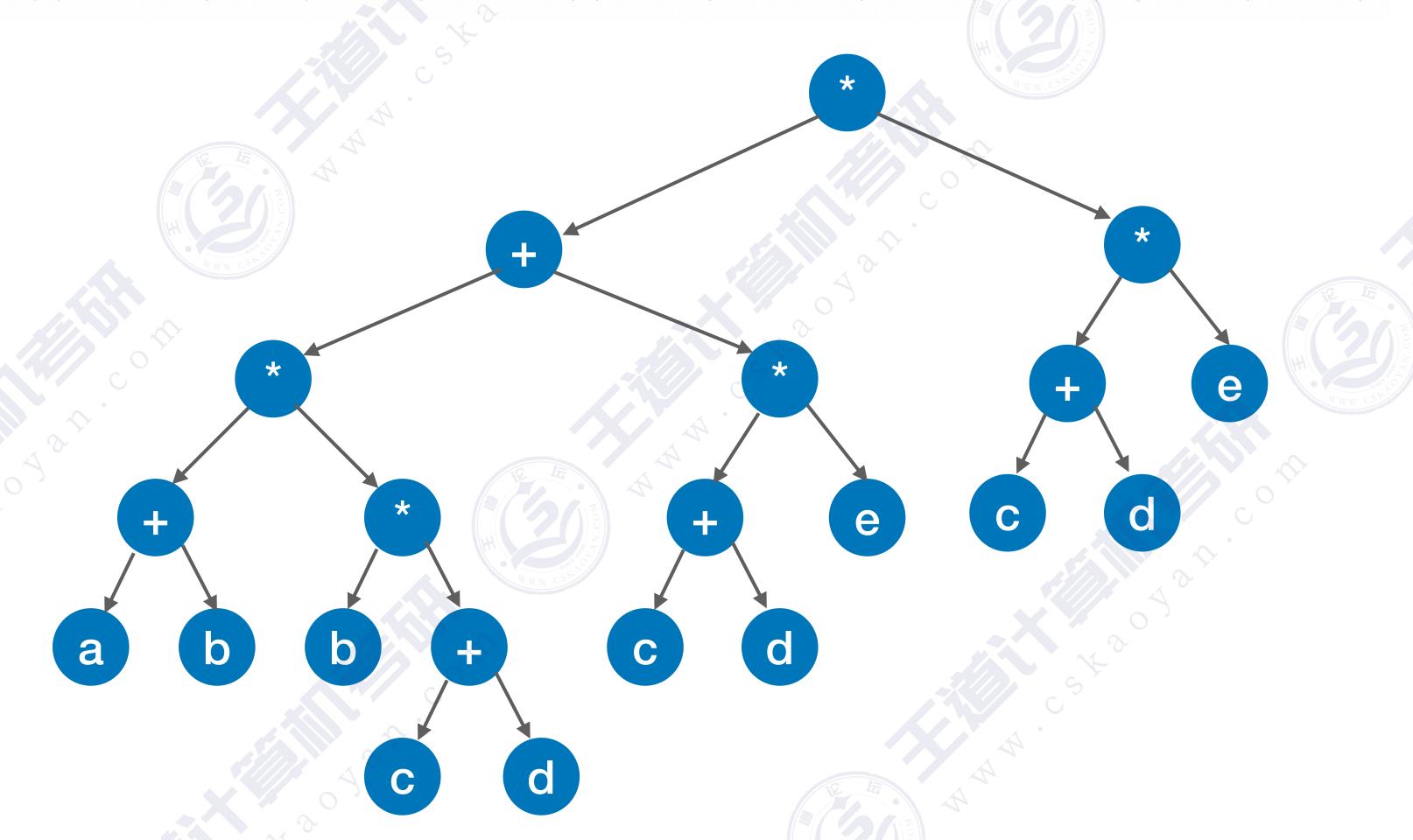
有向无环图 (DAG)

有向无环图:若一个有向图中不存在环,则称为有向无环图,简称DAG图(Directed Acyclic Graph)

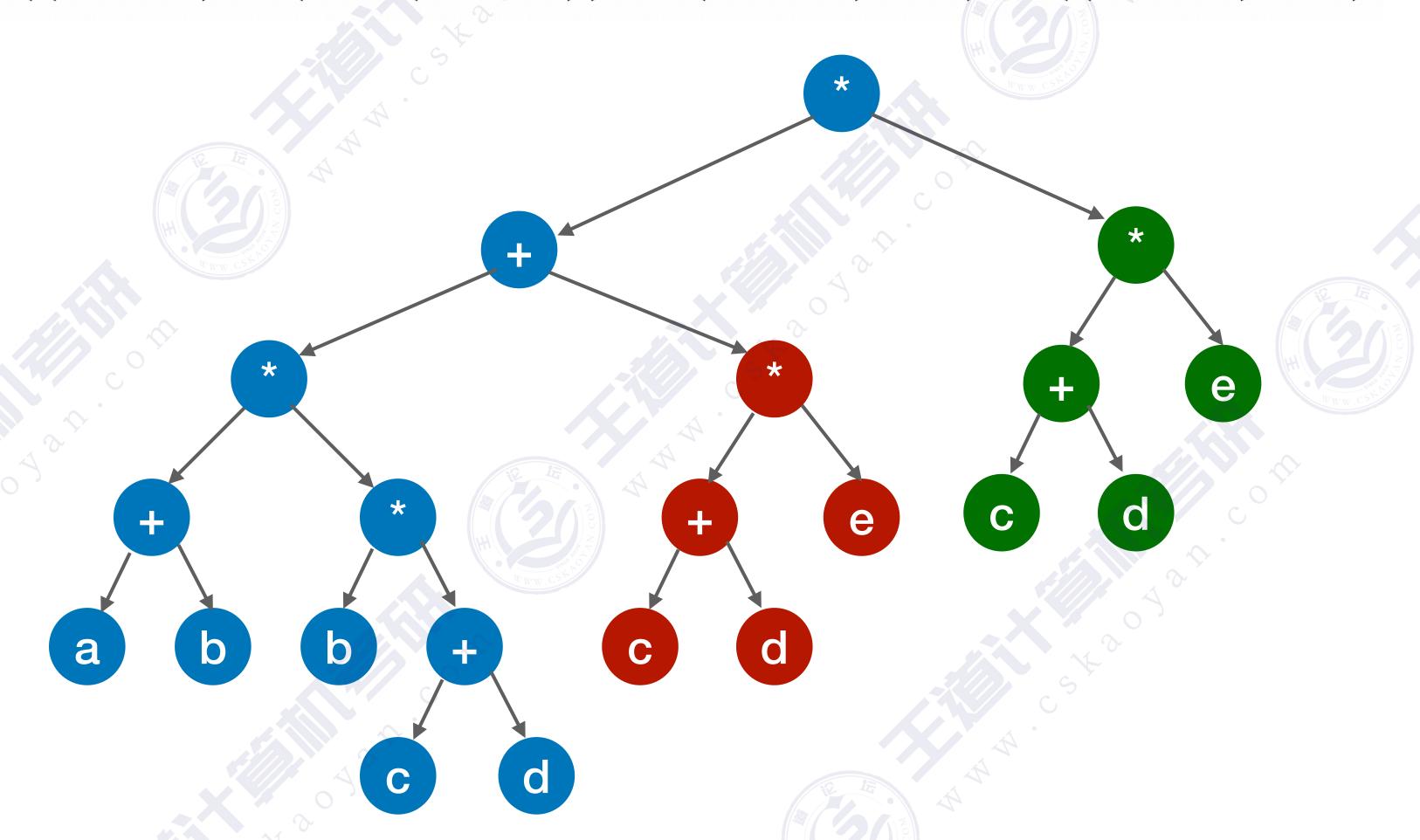




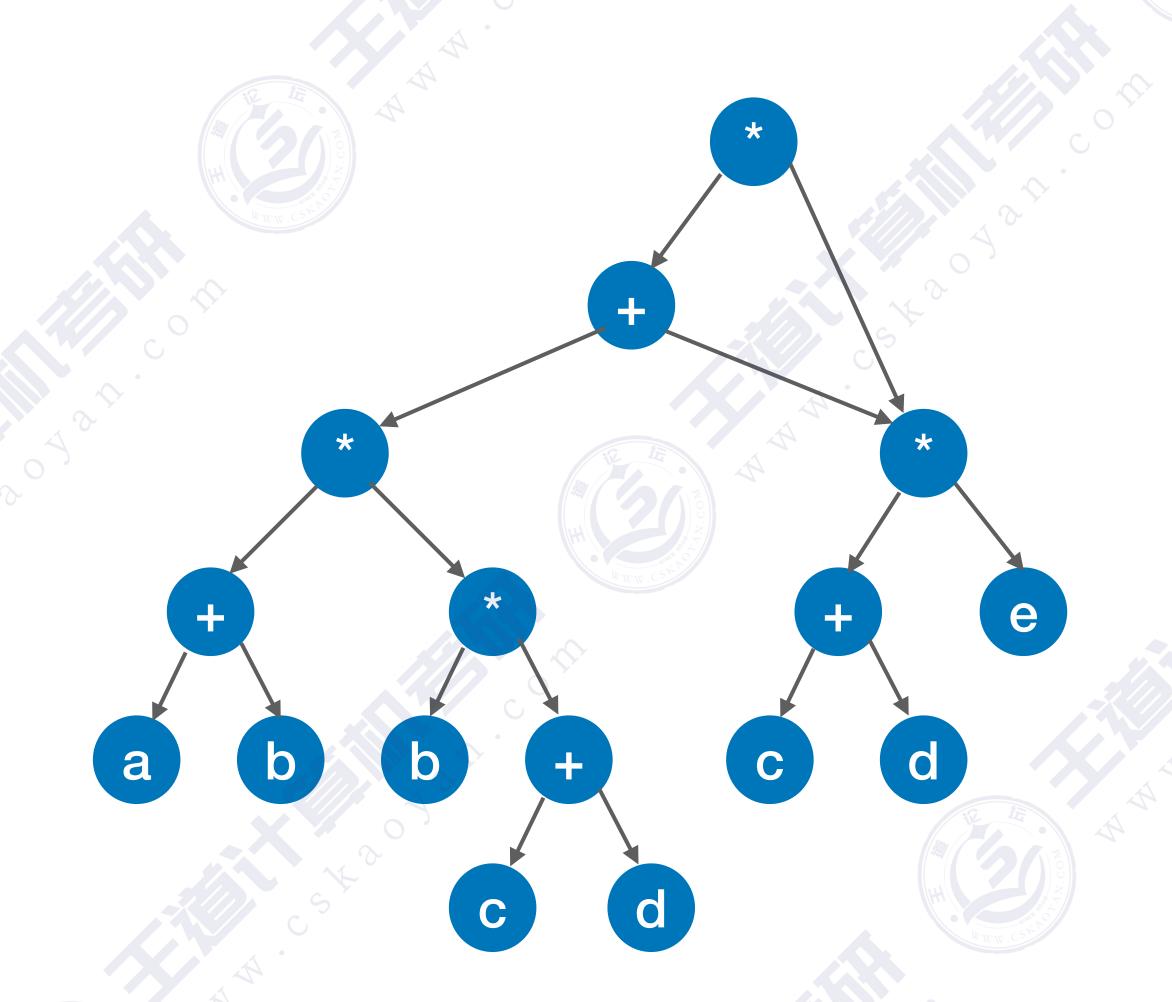
$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$



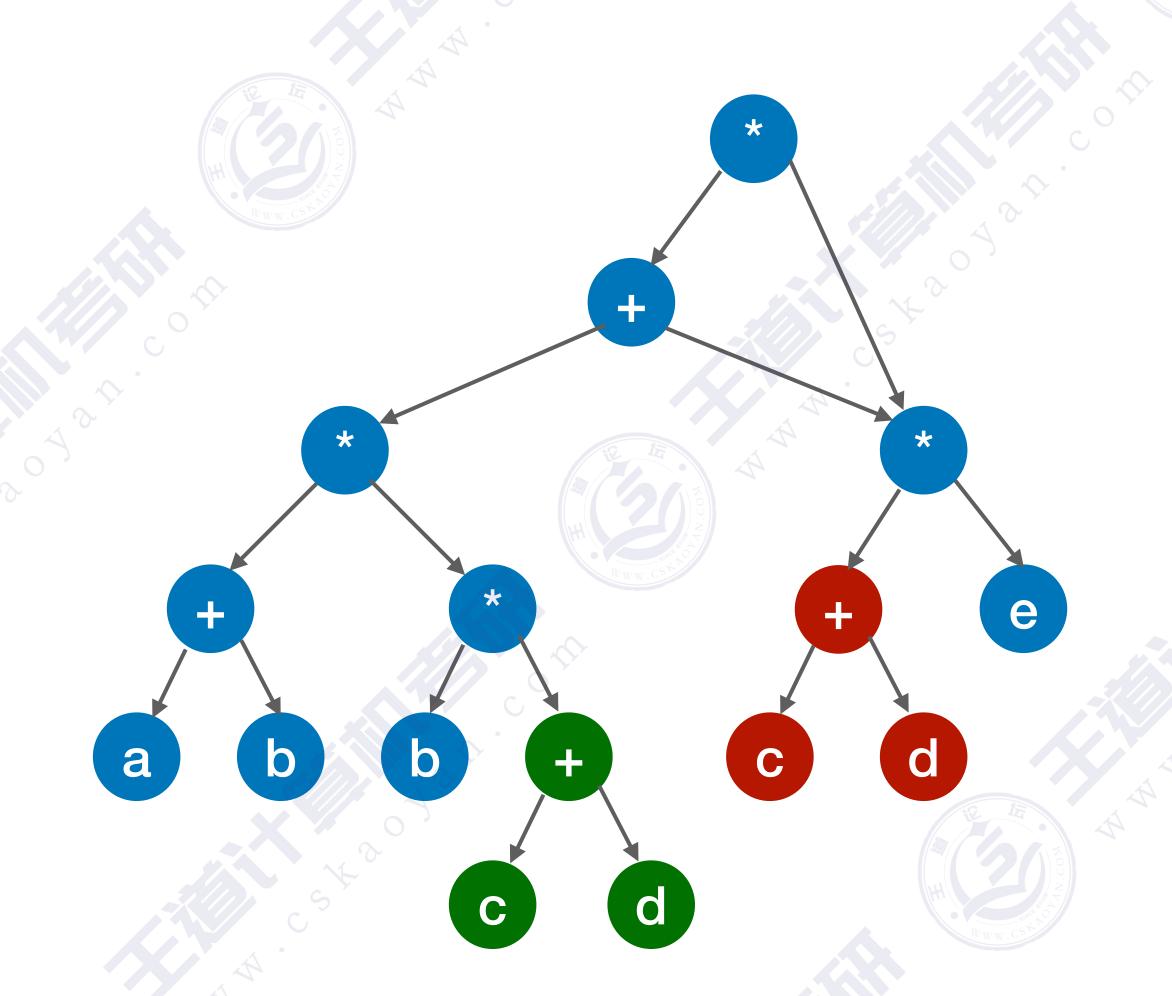
$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$



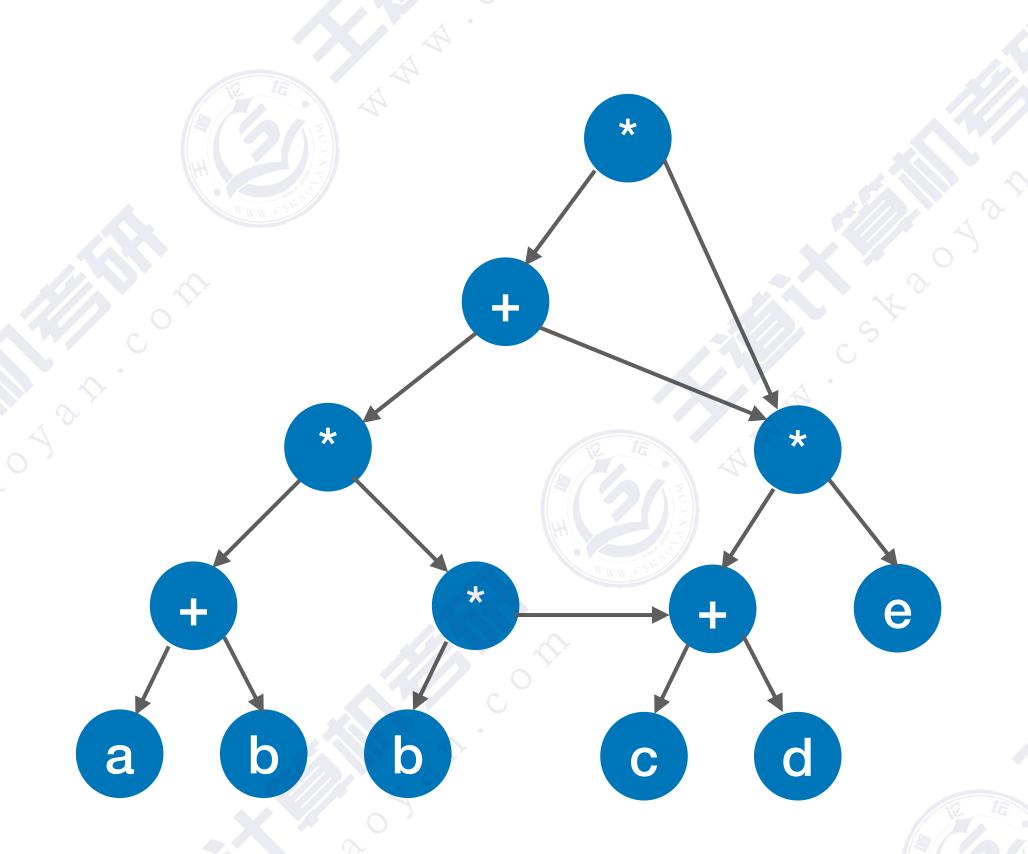
$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$



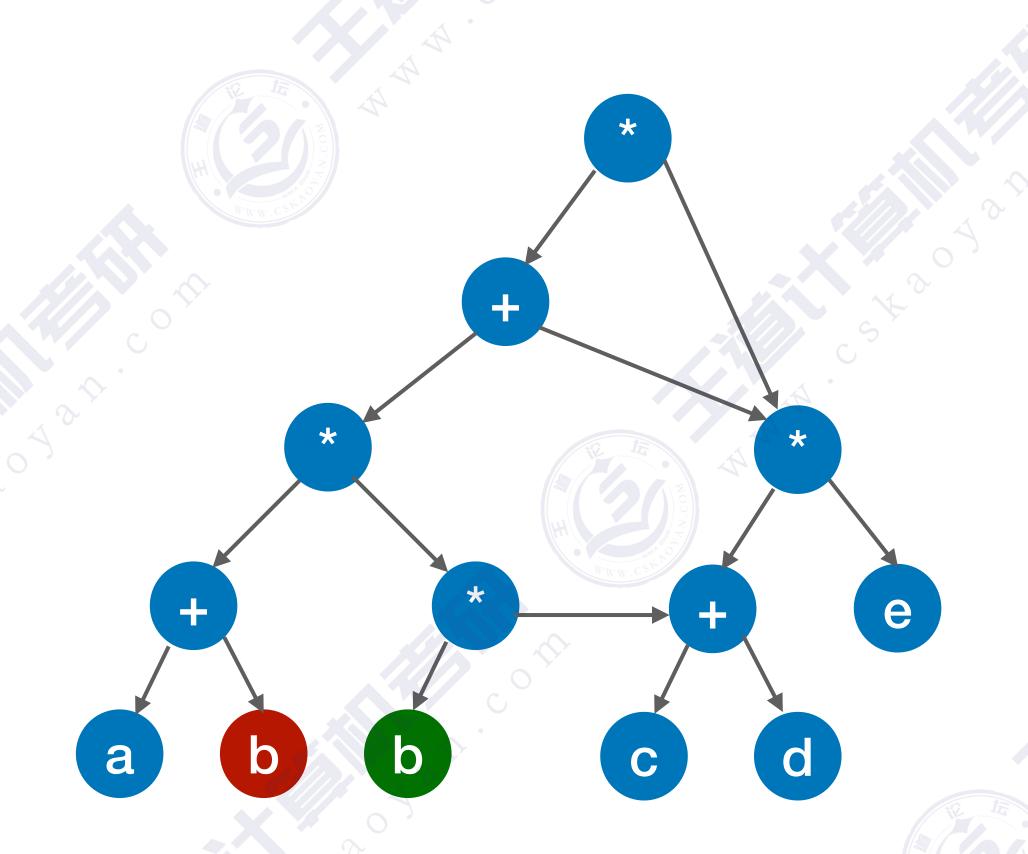
$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$



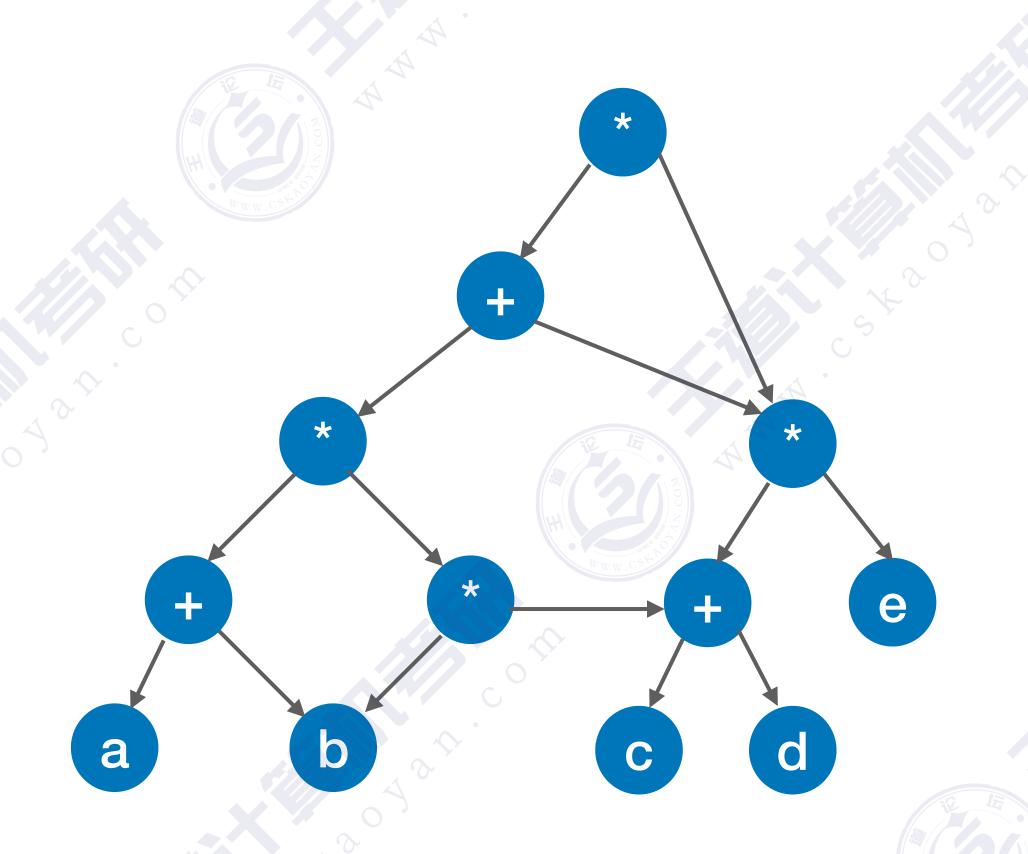
$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$



$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$



$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$





29. 【2019 统考真题】用有向无环图描述表达式(x+y)((x+y)/x), 需要的顶点

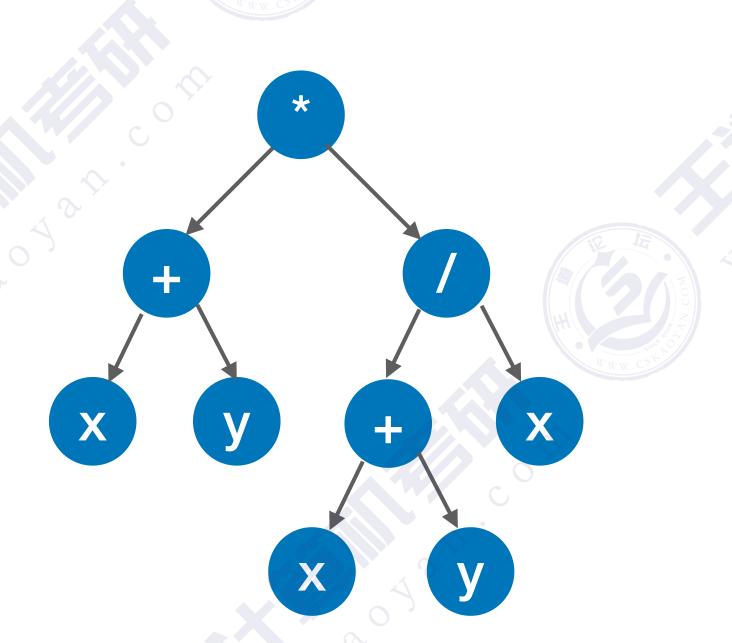
个数至少是()。←

A. 5

C. 8

B. 6←

D. 9←





29. 【2019 统考真题】用有向无环图描述表达式(x+y)((x+y)/x), 需要的顶点

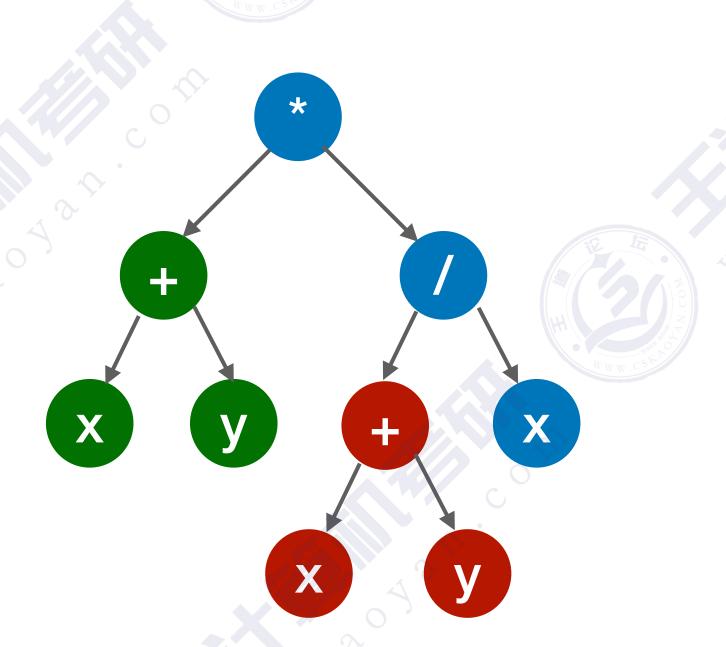
个数至少是()。←

A. 5

C. 8

B. 6←

D. 9←



29. 【2019 统考真题】用有向无环图描述表达式(x+y)((x+y)/x), 需要的顶点

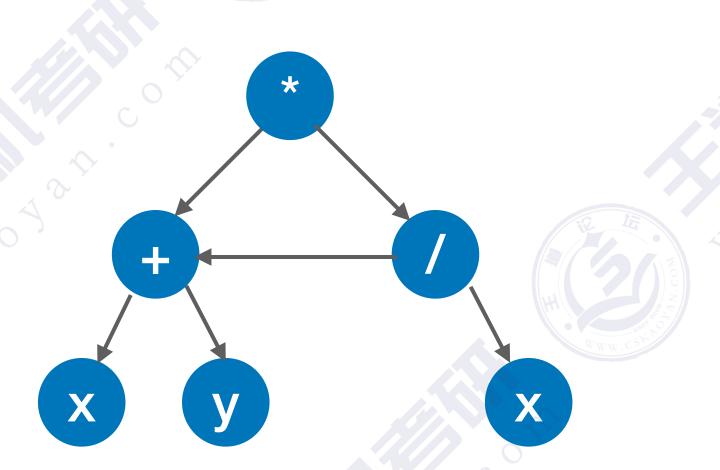
个数至少是()。←

A. 5

C. 8

B. 6←

D. 9





29. 【2019 统考真题】用有向无环图描述表达式(x+y)((x+y)/x), 需要的顶点

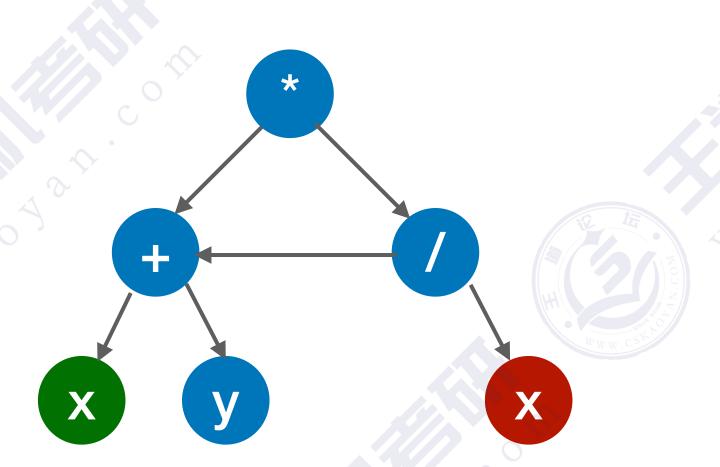
个数至少是()。←

A. 5

C. 8

B. 6←

D. 9←





29. 【2019 统考真题】用有向无环图描述表达式(x+y)((x+y)/x), 需要的顶点

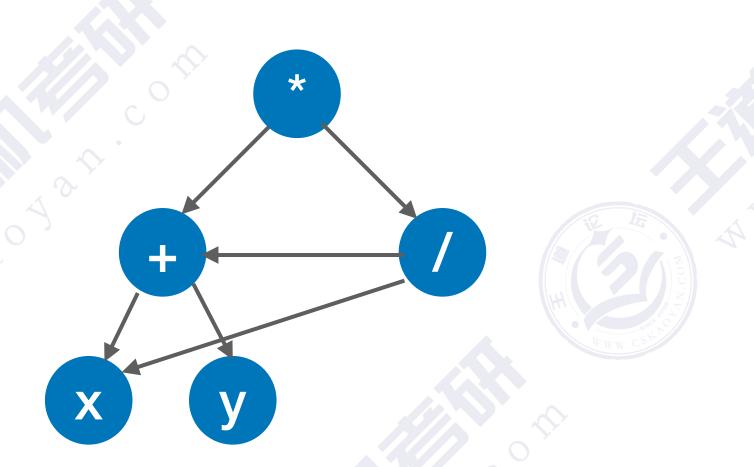
个数至少是()。←

A. 5

C. 8

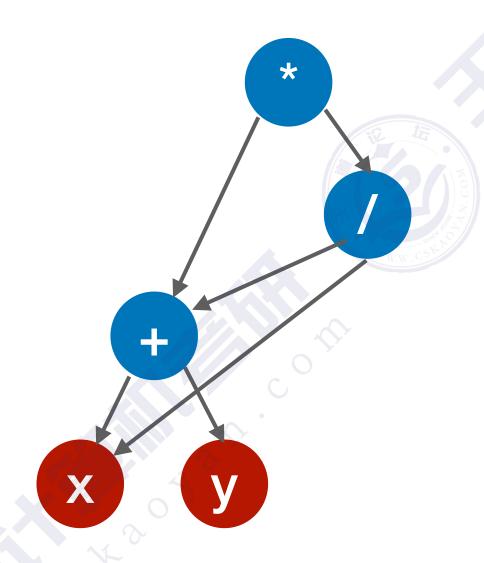
B. 6←

D. 9



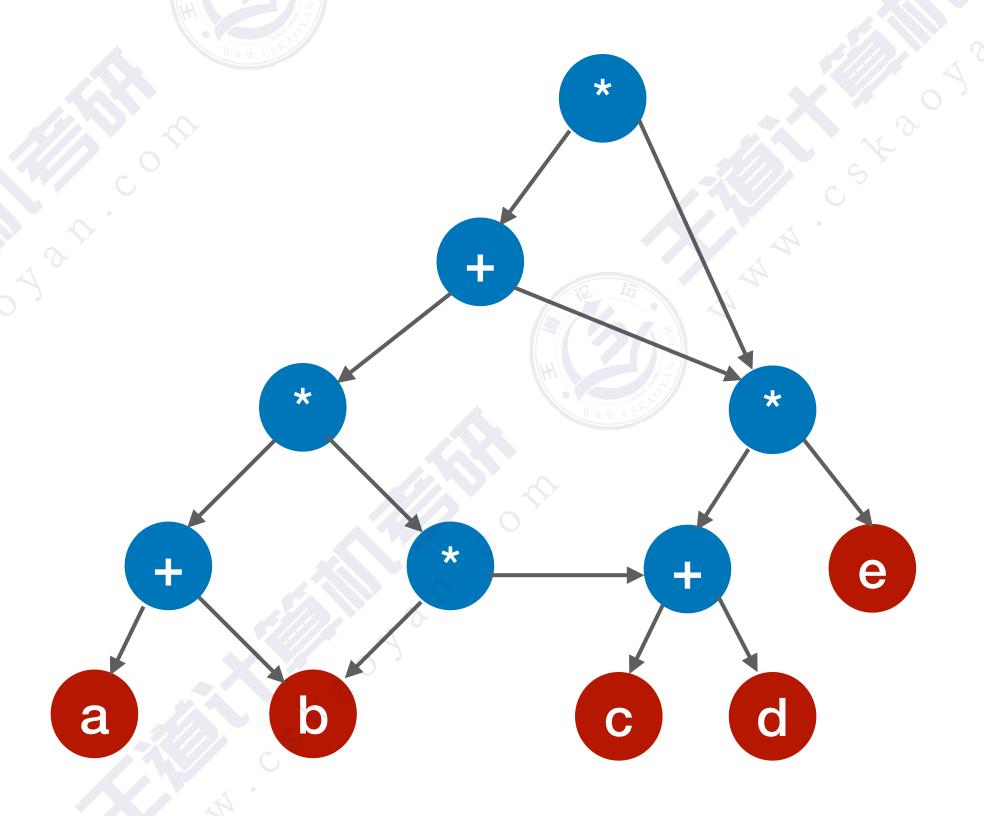


$$(x+y)((x+y)/x)$$



顶点中不可能出现重复的操作数

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$



$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$

Step 1: 把各个操作数不重复地排成一排

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$

Step 1: 把各个操作数不重复地排成一排









$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$

- Step 1: 把各个操作数不重复地排成一排
- Step 2: 标出各个运算符的生效顺序(先
- 后顺序有点出入无所谓)



b

C

d

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$

- **1**
- 4
- 3
- 7
- 5
- **3**)
- **10**

9



Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"



b

C

d

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
(1) (4) (3) (2) (7) (5) (6) (10) (8) (9)

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

C

d

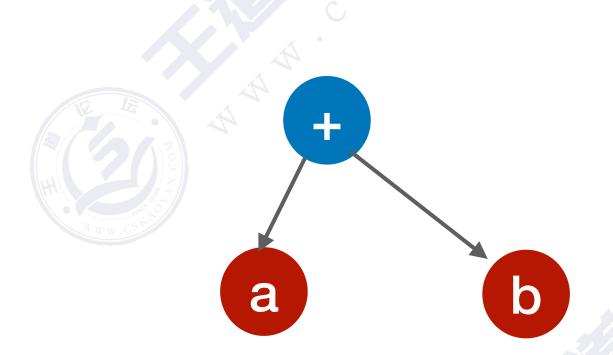
$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 10 8 9

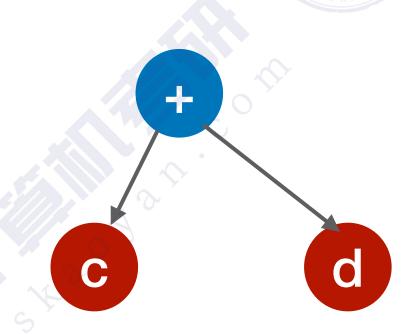
Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"





$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$

1

4

3

2

7

(5

0

10

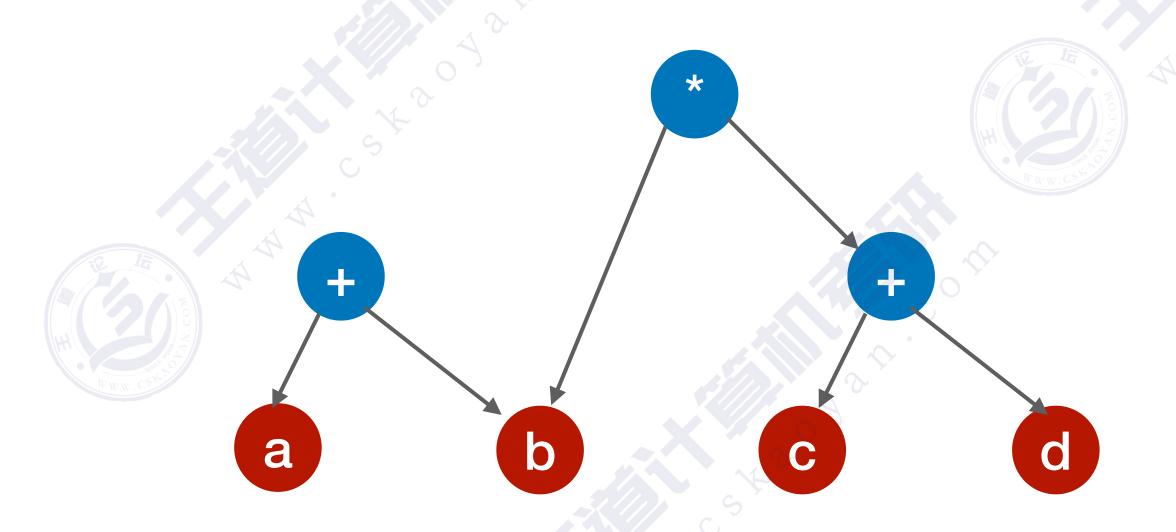
8

9



Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)



$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 10 8 9

b

a

这个运算要基于下面一层运算的结果来进行

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

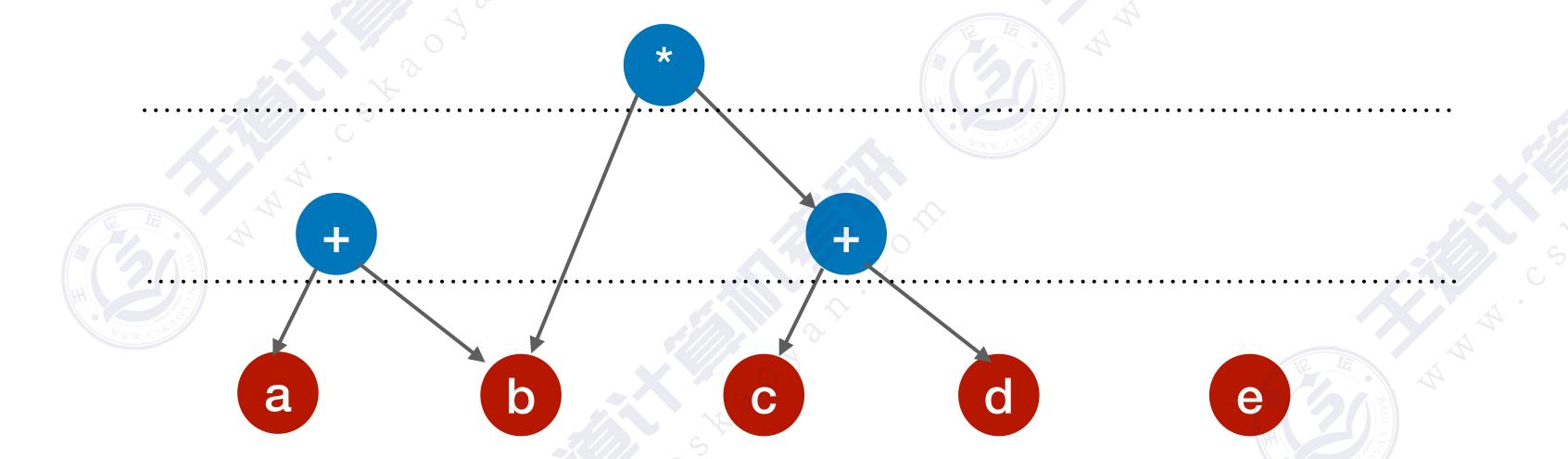
后顺序有点出入无所谓)

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
(1) (4) (3) (2) (7) (5) (6) (10) (8) (9)

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

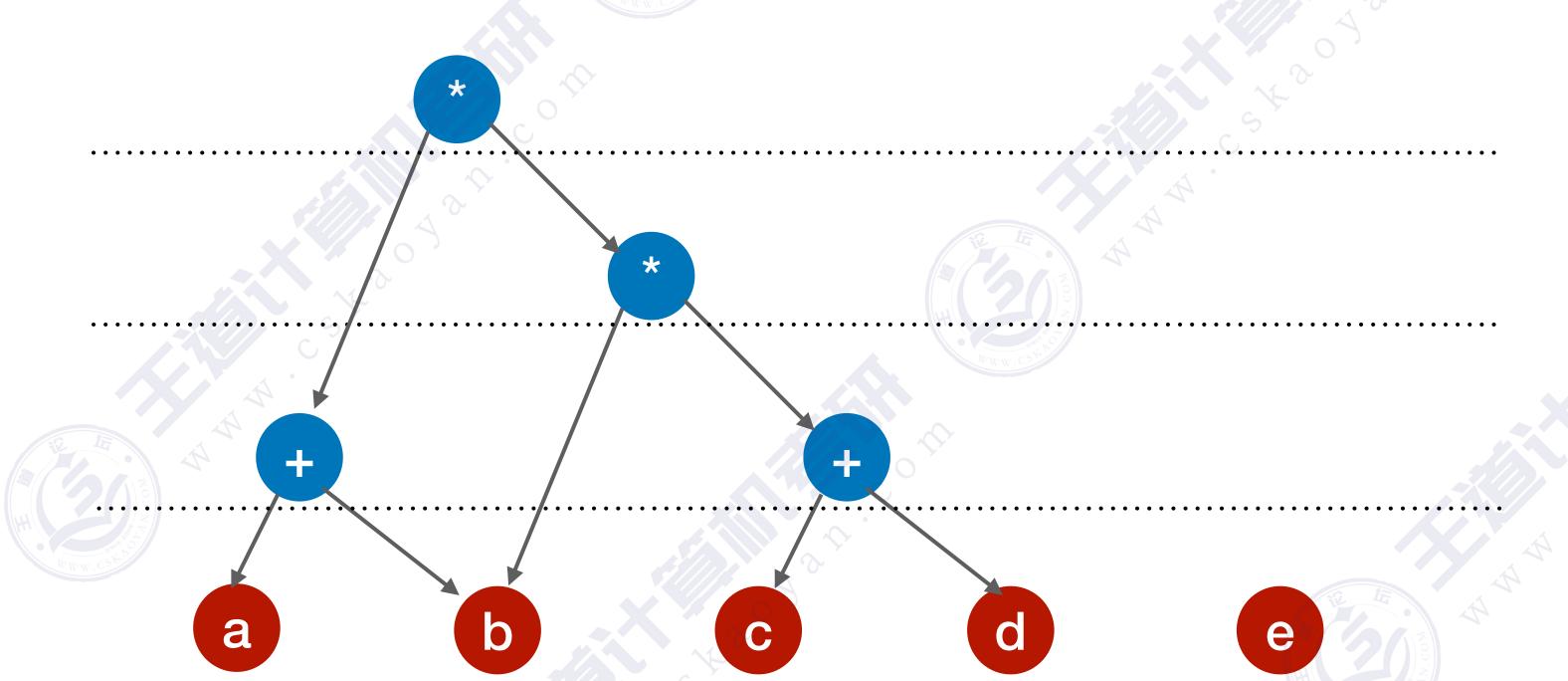


$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 3 2 7 5 6 10 8 9

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

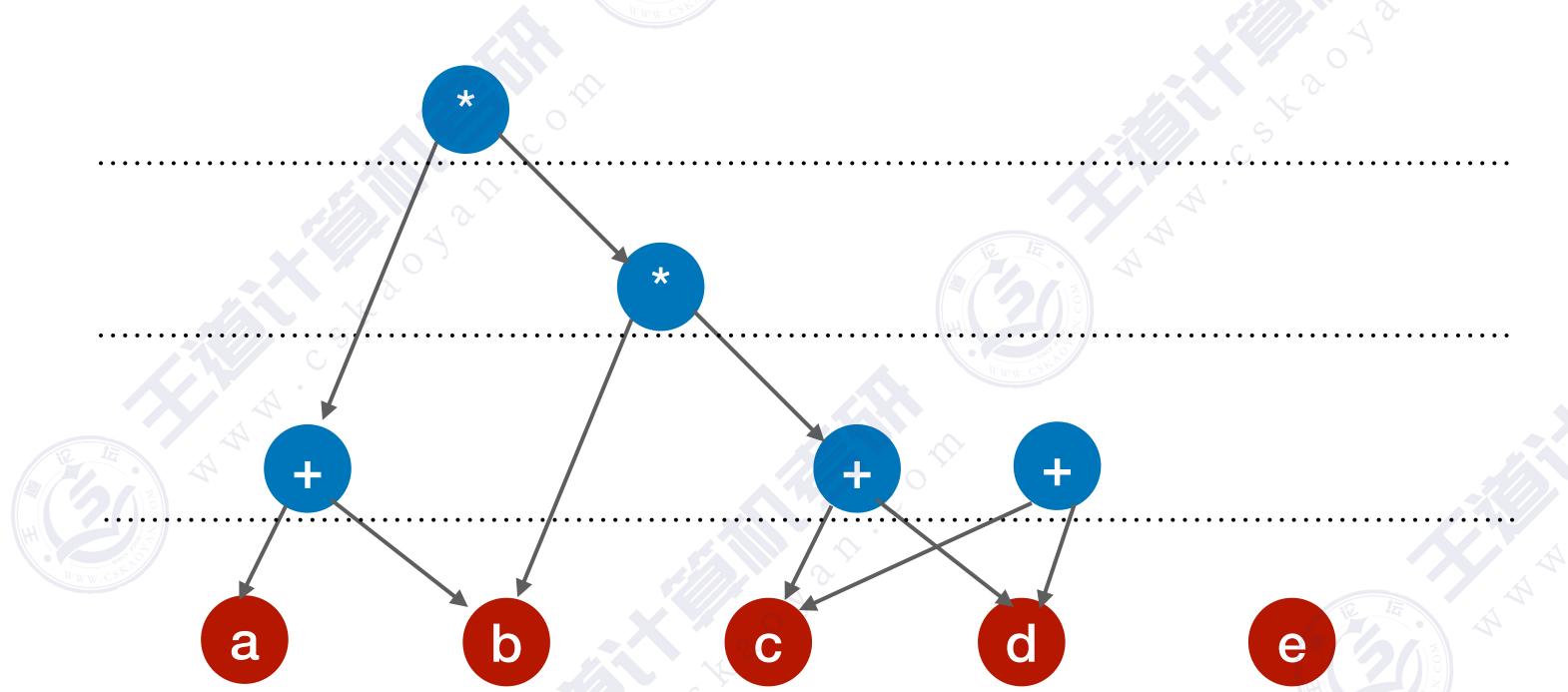


$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 10 8 9

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)



$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 9

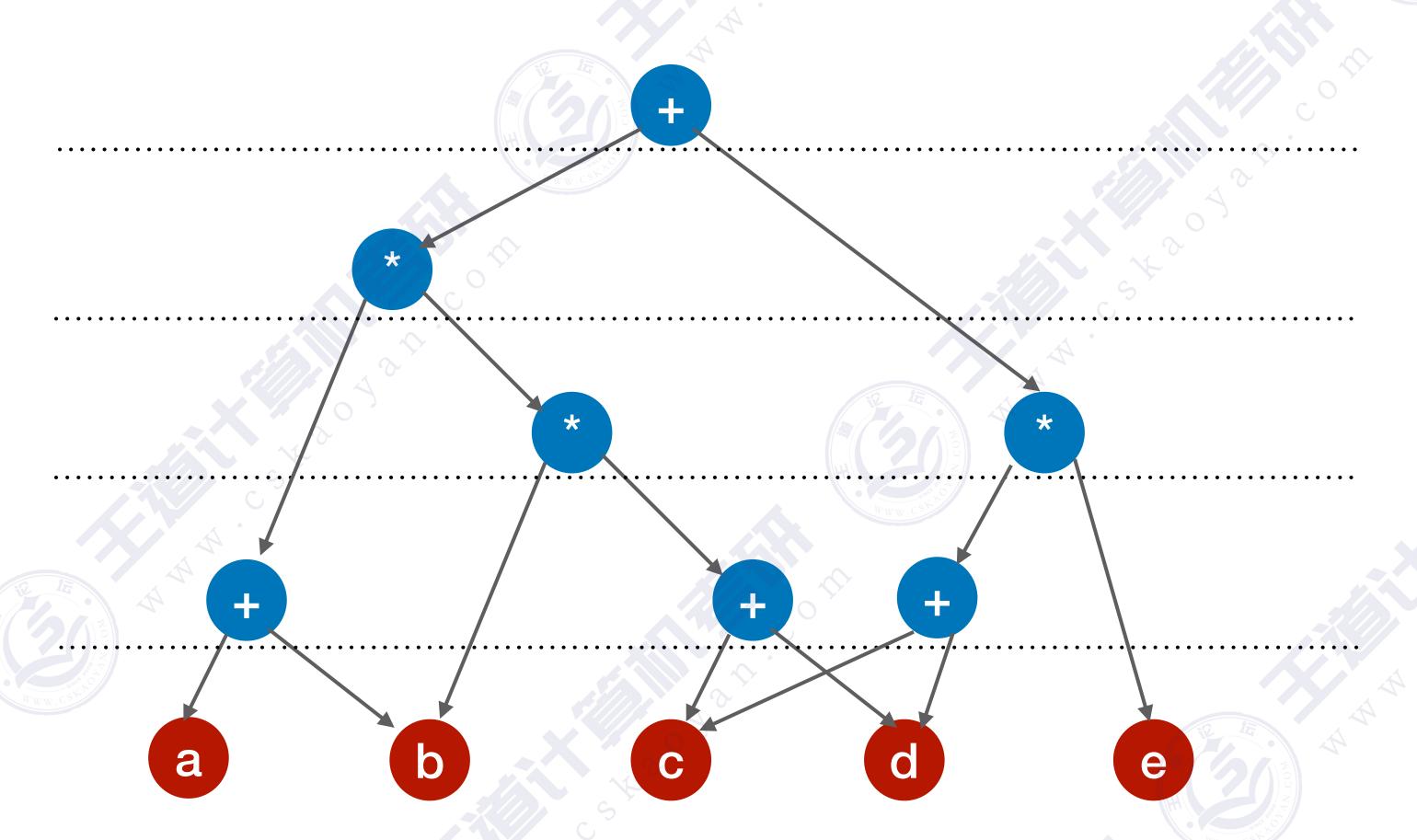
b a

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 10 8 9

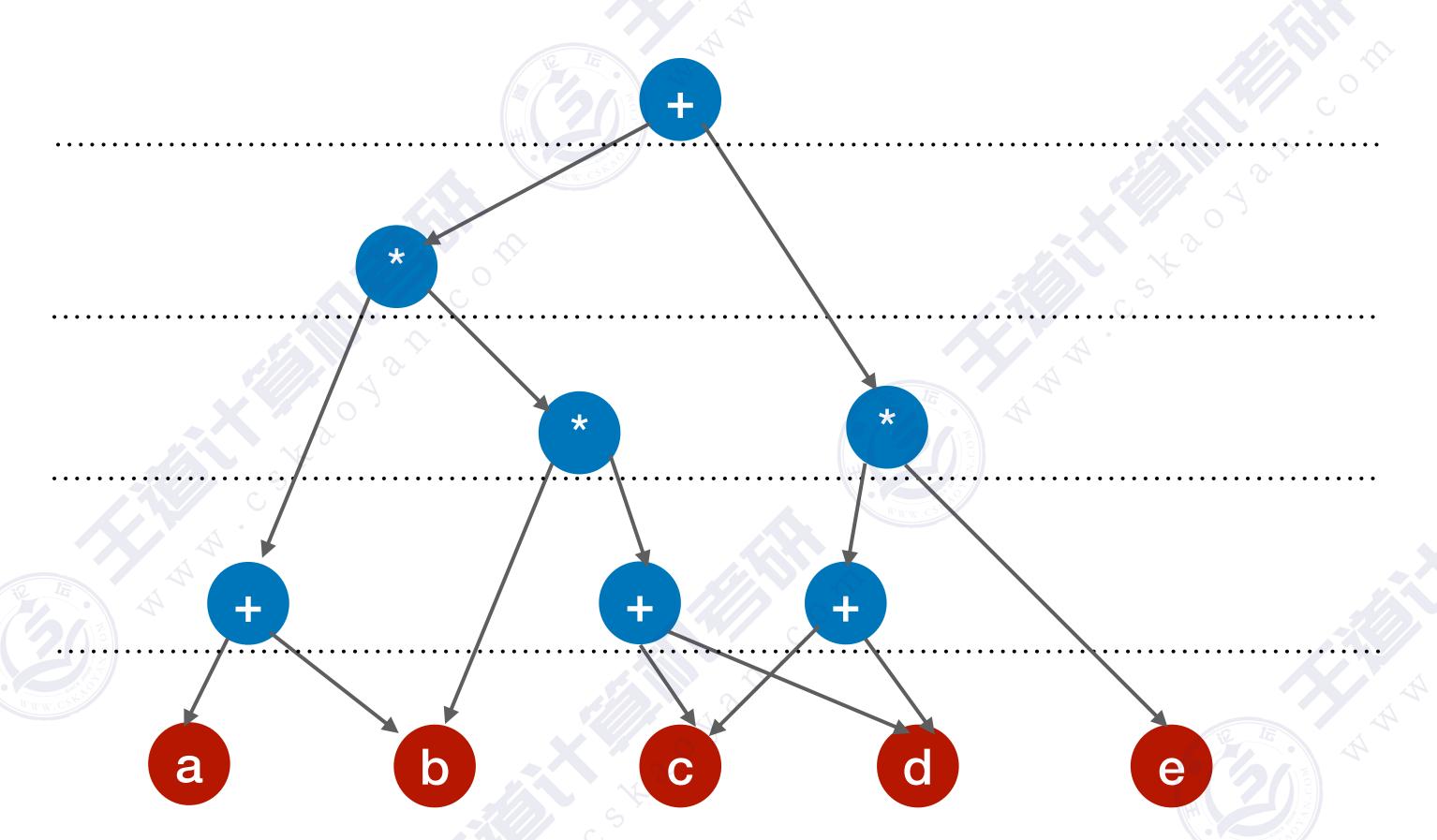


Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 10 8 9

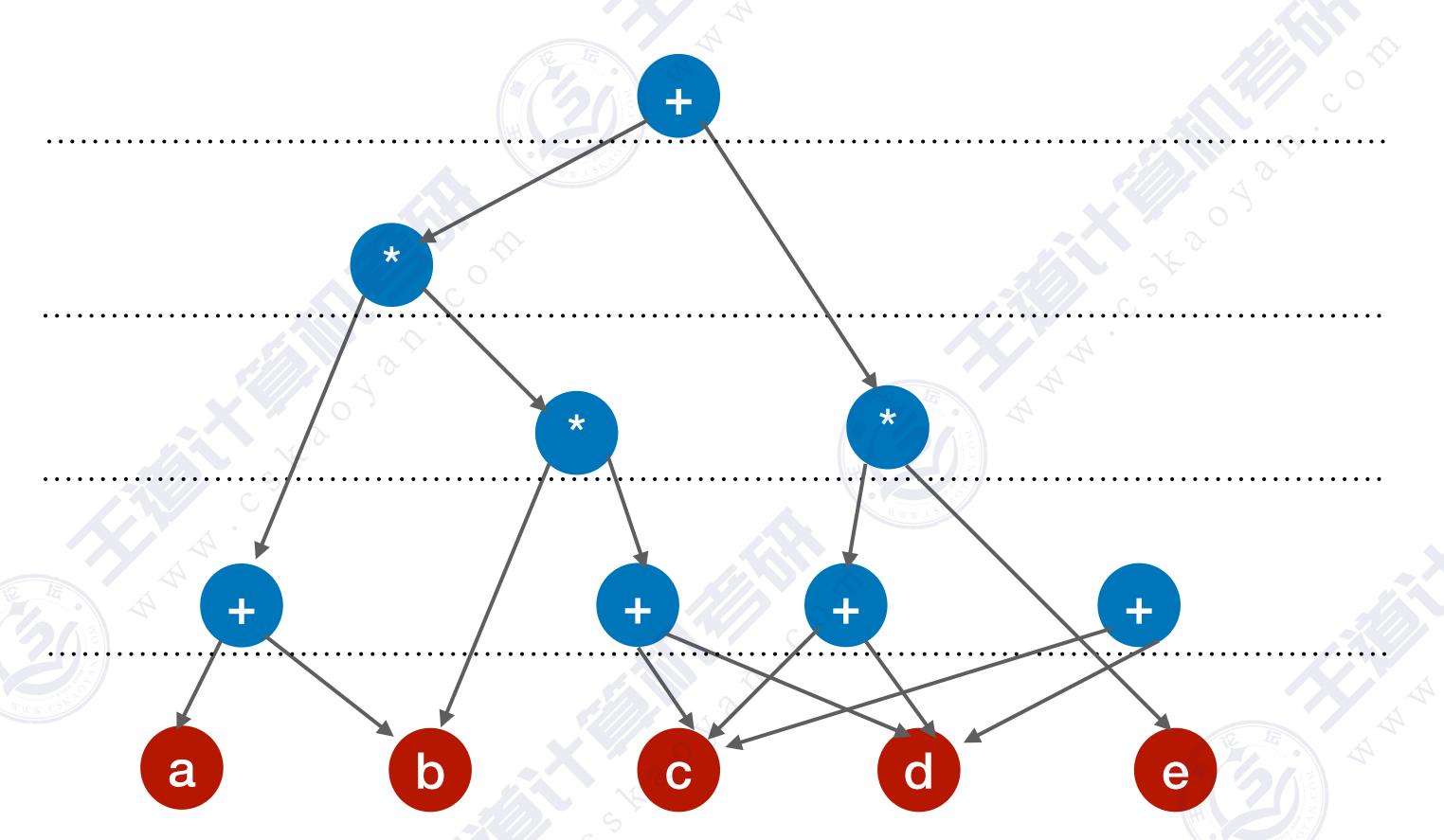


Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 10 8 9



Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

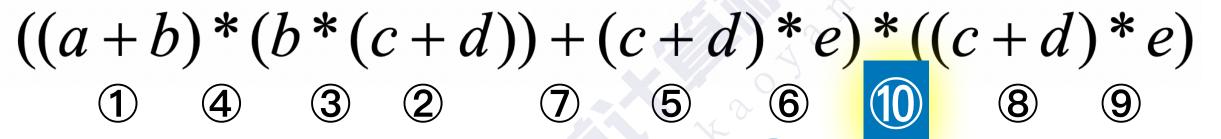
$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$
1 4 3 2 7 5 6 10 8 9

b a

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

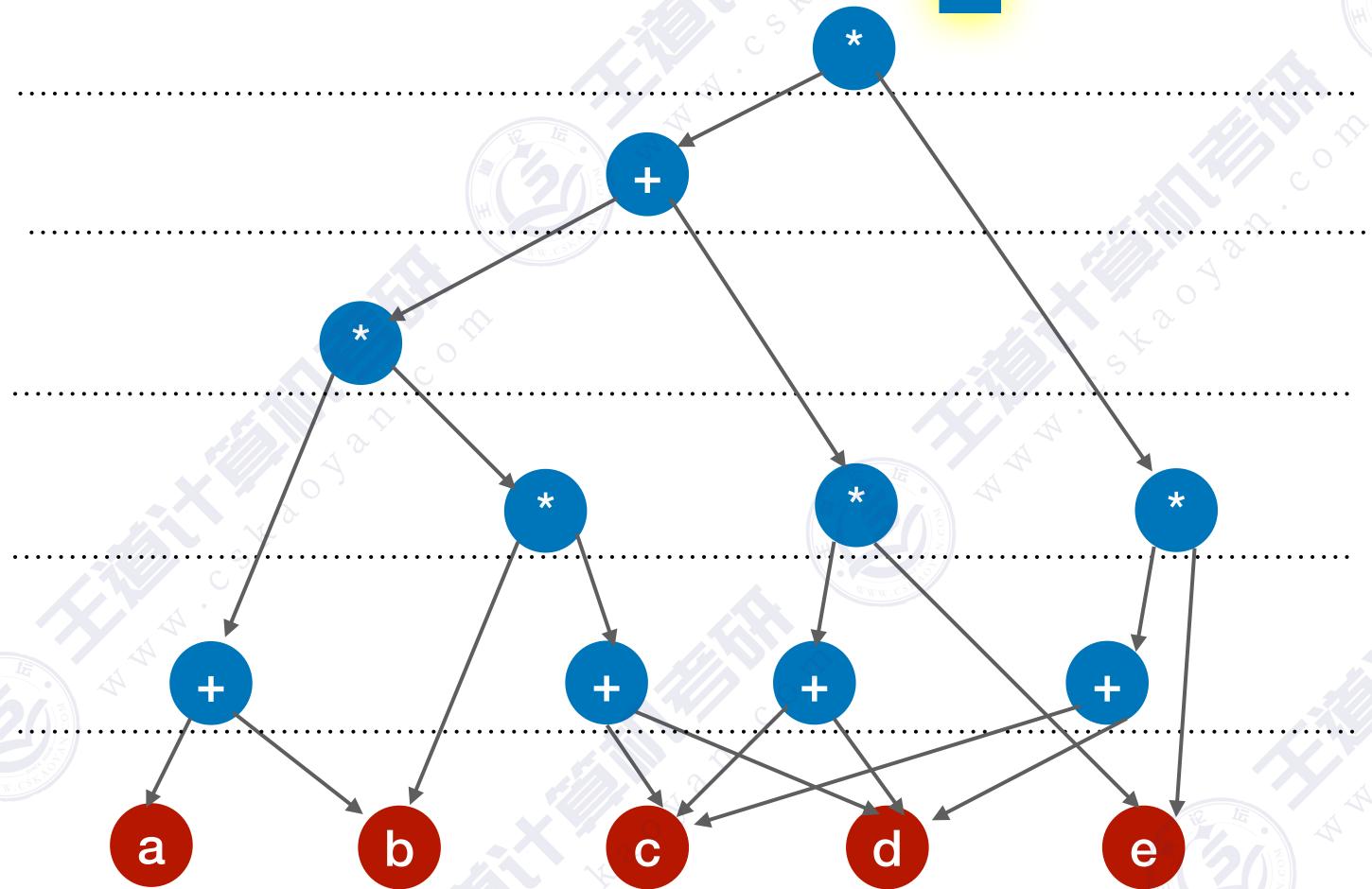
后顺序有点出入无所谓)

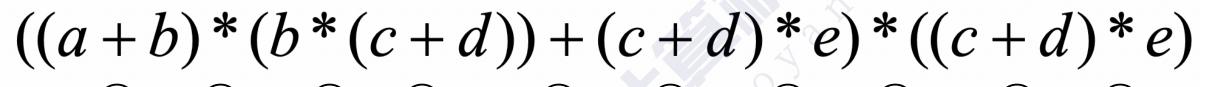


Step 1: 把各个操作数不重复地排成一排

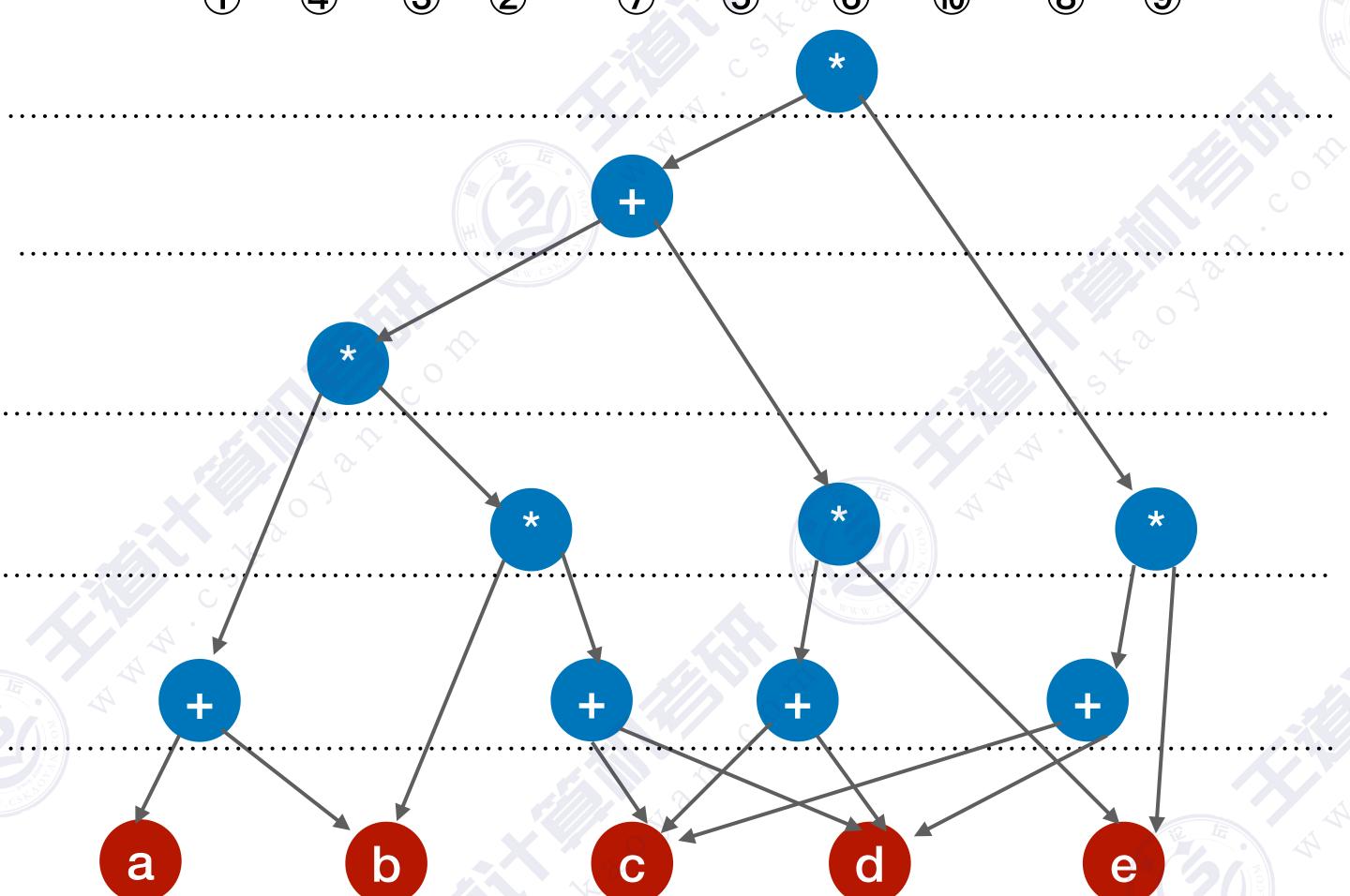
Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)









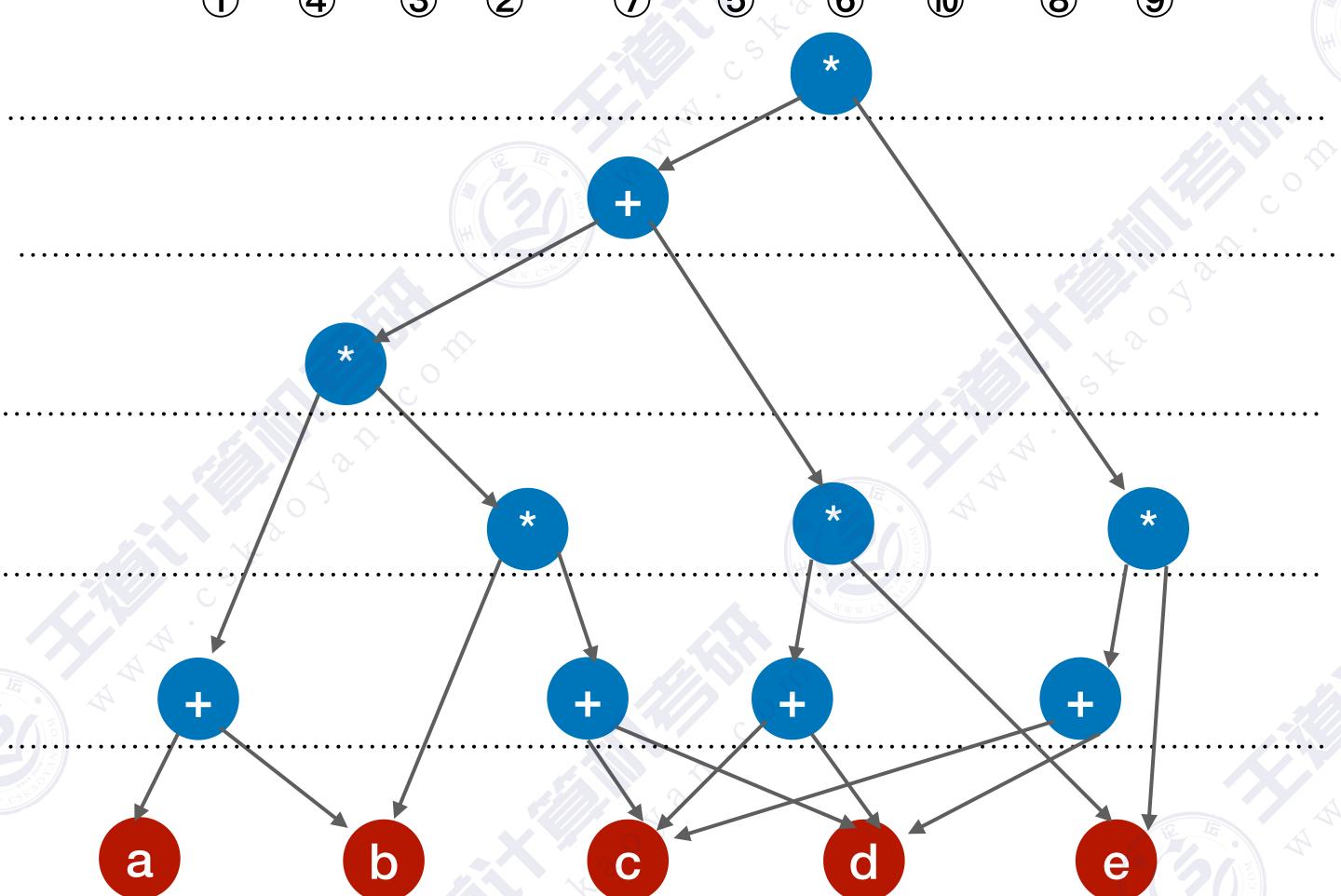
Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$





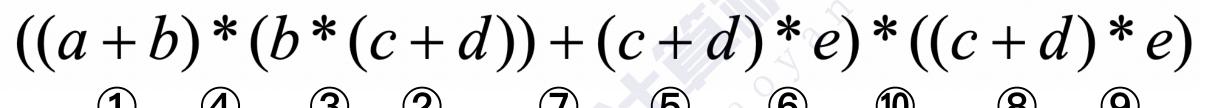
Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符



b a

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$

1

4

(3)

(2)

(7)

0

9

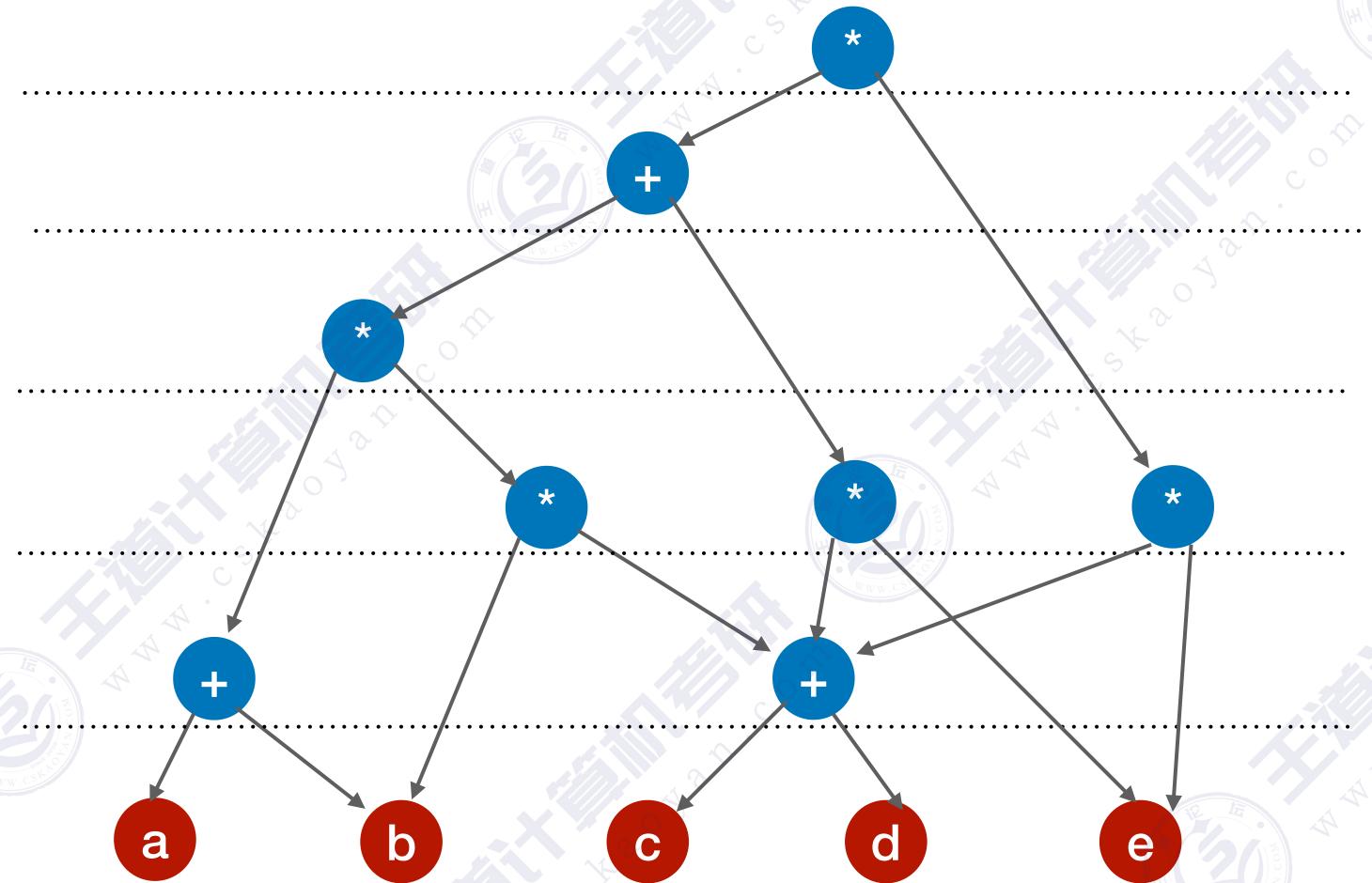


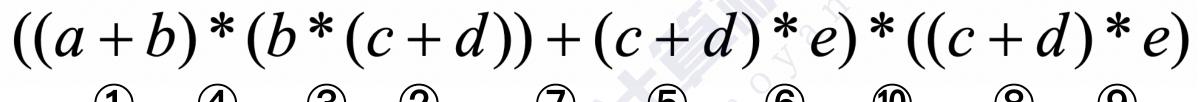
Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符





(1) (4) (3) (2) (7) (5) (6) (10) (8) (9) +

b

a

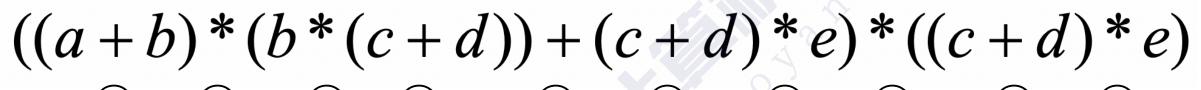
Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符



1

4

3

(2)

(7)

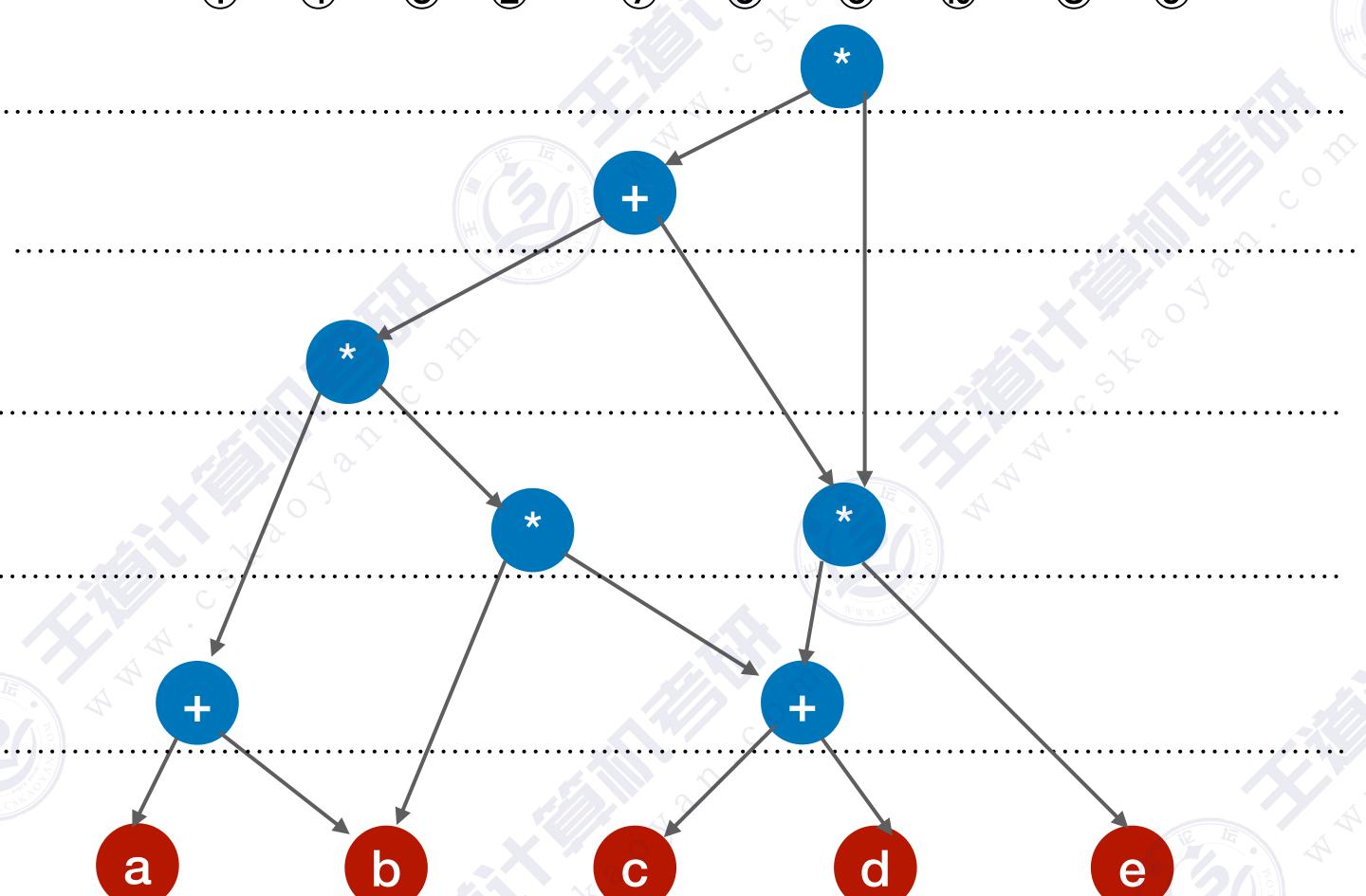
(5

0

1

8

9



Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

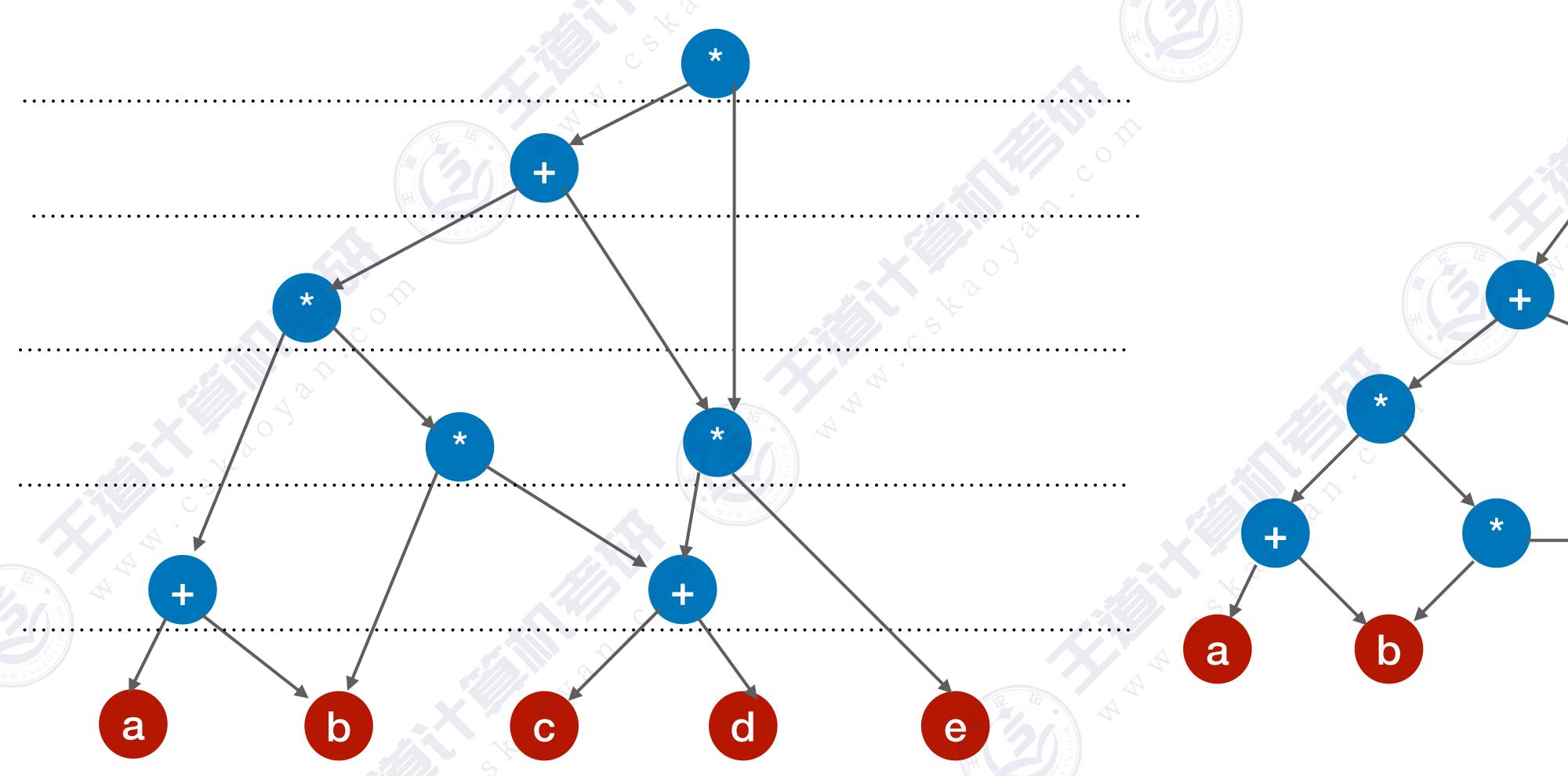
后顺序有点出入无所谓)

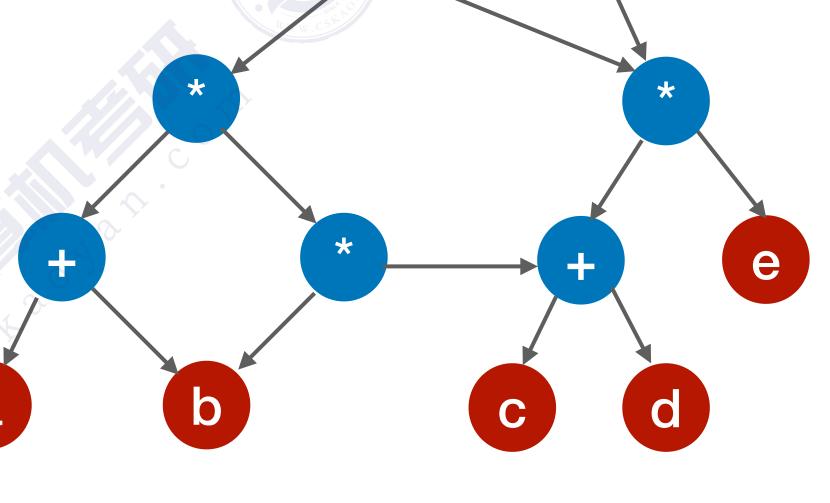
Step 3: 按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符

对比一哈子

$$((a+b)*(b*(c+d))+(c+d)*e)*((c+d)*e)$$





(a*b)*(a*b)*(a*b)*c



Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符

(a*b)*(a*b)*(a*b)*c



Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符

(a*b)*(a*b)*(a*b)*c

- 1
- 4
- **(2**)
- **(5)**
- **3**
- 6

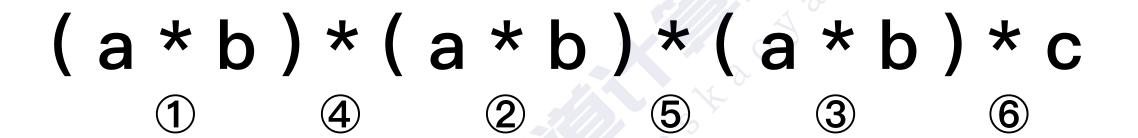
Step 1: 把各个操作数不重复地排成一排

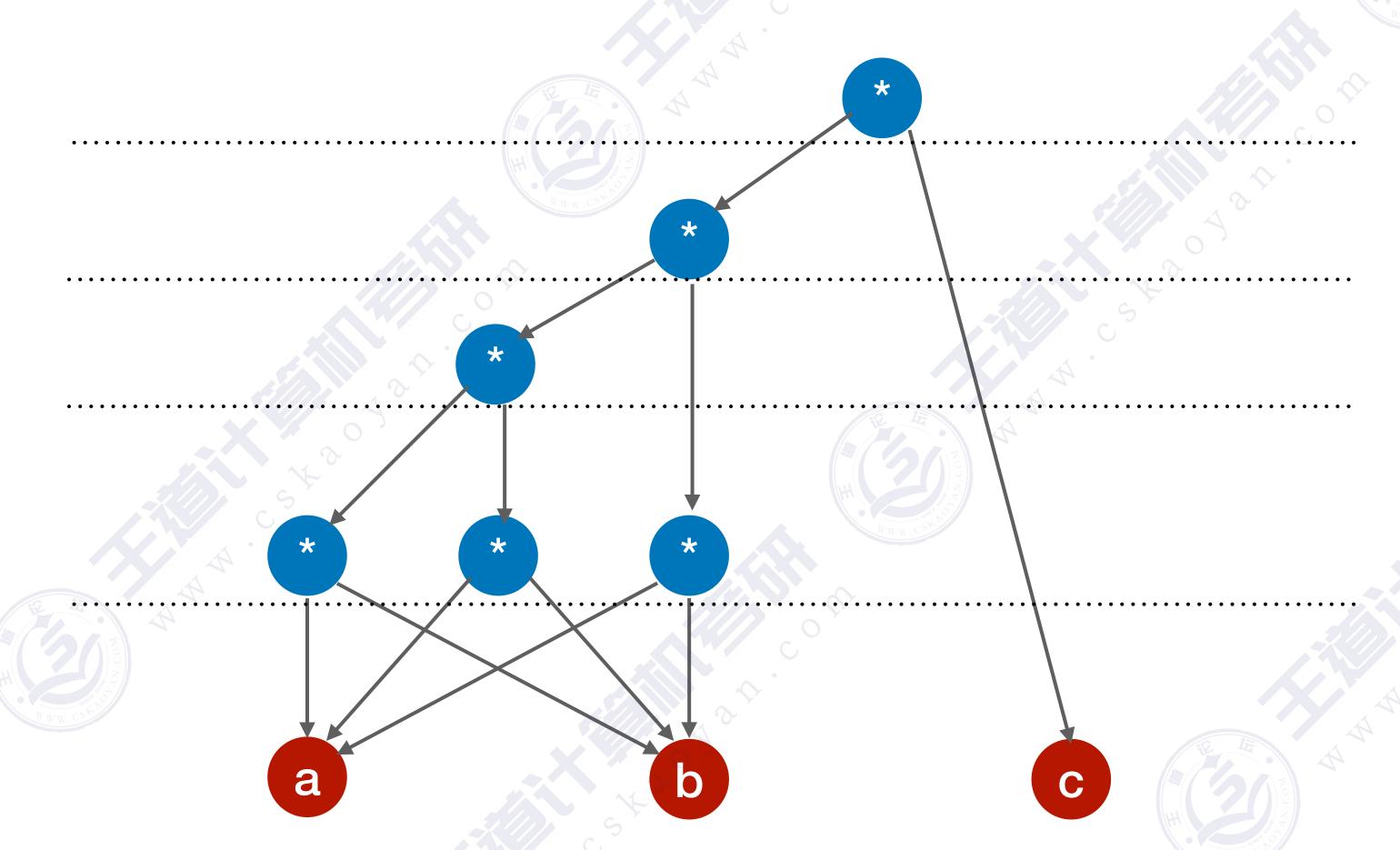
Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符





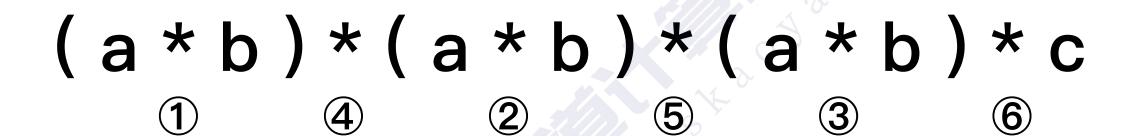
Step 1: 把各个操作数不重复地排成一排

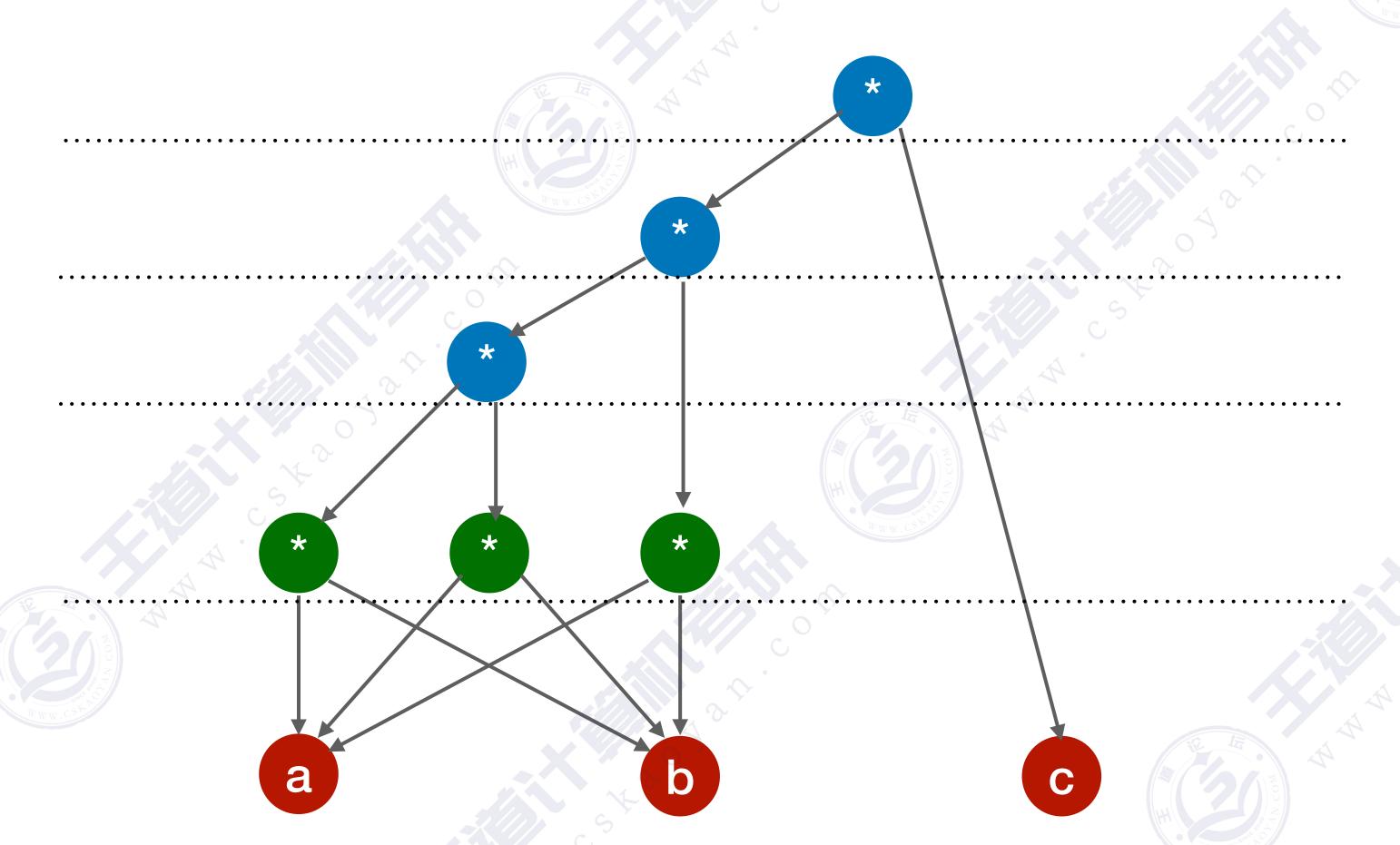
Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符





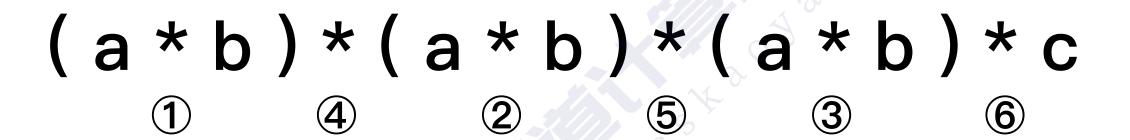
Step 1: 把各个操作数不重复地排成一排

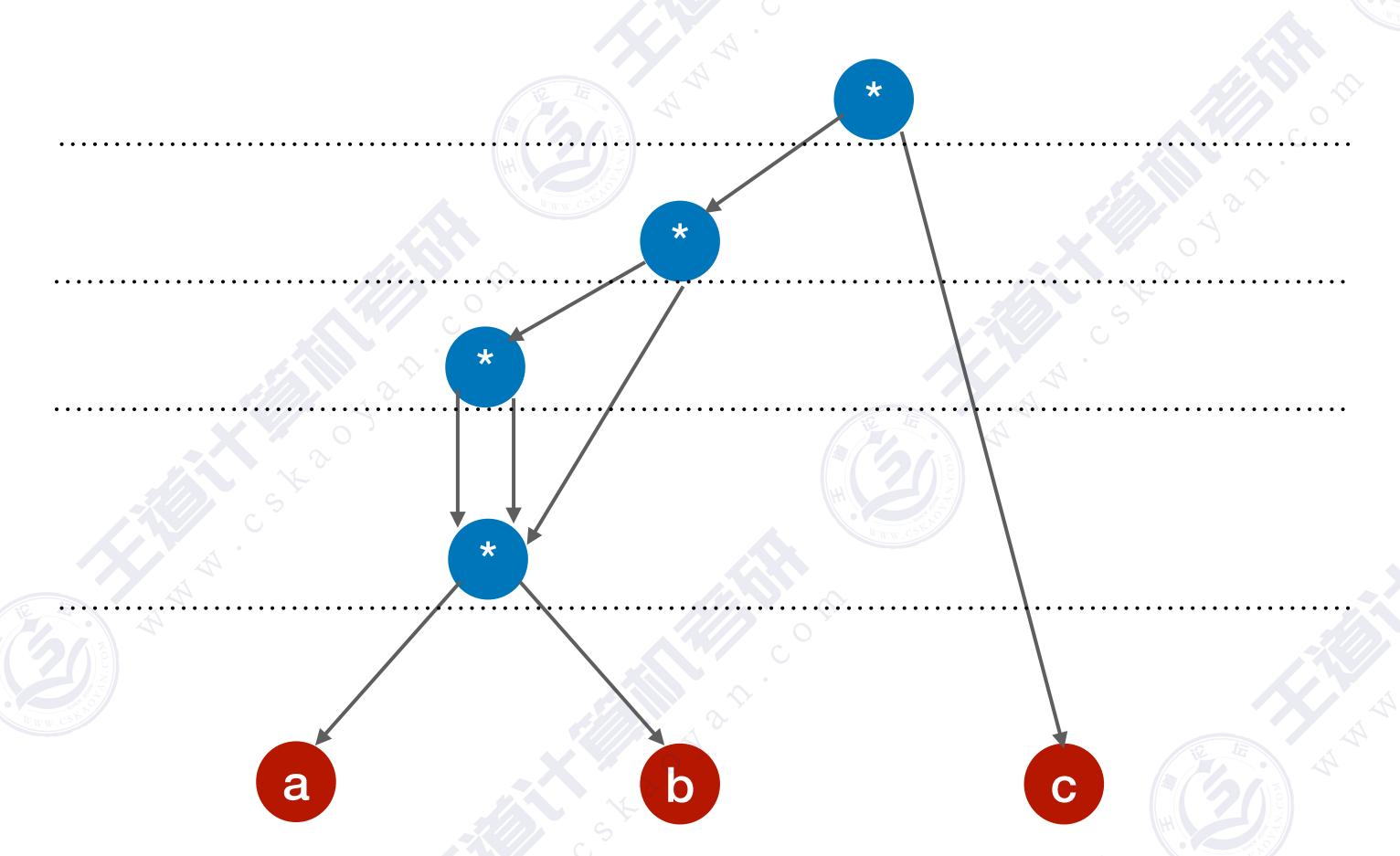
Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符





Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符

知识点回顾与重要考点

29. 【2019 统考真题】用有向无环图描述表达式(x+y)((x+y)/x), 需要的顶点

个数至少是()。←

A. 5

C. 8

B. 6€

D. 9

Step 1: 把各个操作数不重复地排成一排

Step 2: 标出各个运算符的生效顺序(先

后顺序有点出入无所谓)

Step 3:按顺序加入运算符,注意"分层"

Step 4: 从底向上逐层检查同层的运算符

